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10/741,499

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EXAMINER

CAO, DIEM K

ART UNIT

PAPER NUMBER

2194

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DELIVERY MODE

10/05/2007

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/741,499

Applicant(s)

BOU-GHANNAM ET AL.

Examiner

Diem K. Cao

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-10 and 12-18 are pending. Applicant has amended claims 1, 2, 4-7, 9, 12, 13, 15-18 and canceled claim 11.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-4, 6-10, 12-15 and 17-18 are rejected under 35 U.S.C. 102(e) as being unpatentable over Cheyer et al (U.S. 7,069,560 B1).**

As to claim 1, Cheyer teaches a method for managing multimodal interactions comprising the steps of (col. 5, lines 6-14, col. 10, lines 17-25):

- registering a plurality of modality components with a modality component server (an agent registers ... vocabulary; col. 7, lines 30-34 and col. 17, lines 18-44 and Facilitator 402 is a specialized server agent; col. 6, lines 31-33 and 45-46 and see Figs. 3-4), wherein each modality component handles an interface modality for an application (a collection ... current inputs; col. 7, lines 13-19 and services that it provides, handler, task; col. 12, lines 19-30, lines 46-49, and col. 17, lines 18-44),

- initiating a multimodal application from a client device (a mobile user ... with standard interface dialog mechanism; col. 7, line 65 – col. 8, line 10), the multimodal application submitting activation conditions for modality components it supports to a multimodal engine of the modality component server (Conversely, a user may express a task to be executed by using typed, handwritten, or spoken English sentence; col. 8, lines 10-14),

- activating a modality component by a modality activator of modality component server when activation conditions for the modality component are satisfied (If the question ... written in the user interface ... natural language (NL) agent; col. 8, lines 15-19; and col. 17, lines 18-40, the facilitator determines the required sub-goals and then selects agents suitable for performing the required sub-goals; col. 18, lines 56-63),

- connecting an activated modality component to a device (select the agents; col. 18, lines 62-63 and col. 17, lines 51-59); and

- conveying a user interaction from the device to the modality component for processing (when a facilitator ... facilitator; col. 7, lines 36-43; the facilitator then transmits the sub-goals requests to the selected agents; col. 18, lines 63-64).

As to claim 2, Cheyer teaches the method further comprising the step of placing results from the user interaction onto a shared memory area of the modality component server (read or write shared data on the facilitator; col. 7, lines 47-50).

As to claim 3, Cheyer teaches for each modality component, establishing a list of activation conditions (capabilities, triggers, tasks; col. 17, lines 18-40 and conditions; col. 22,

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lines 21-23) such that at least one operation of the modality component is fired when one of the activation conditions is detected (client agent performed the requested service; col. 18, lines 36-45 and col. 7, lines 41-43).

As to claim 4, Cheyer teaches wherein at least one of the plurality of modality components is remotely located from the device (a user interface ... sending requests to the facilitator ... remote application; col. 8, lines 1-14).

As to claim 6, Cheyer teaches wherein at least one of the plurality of modality components is disposed within the device (user interface agent runs on the user's local laptop; col. 8, lines 2-4).

As to claim 7, Cheyer teaches a modality component server comprising:

a modality activator configured to dynamically activate at least one modality component responsive to an occurrence of an application event (a user interface agent; col. 7, lines 13-18 and col. 8, line 2-7) initiated by a multimodal application from a client ( and a mobile user ... with standard interface dialog mechanism ... perform the task; col. 7, line 65 – col. 8, line 14)

- a multimodal engine including an inference engine (the facilitator ... problem solving; col. 6, lines 45-48), a list of activation conditions (the facilitator maintains a knowledge base that records the capabilities of a collection of agents; col. 16, line 66 – col. 17, line 2; capabilities, triggers, tasks; col. 17, lines 18-40 and conditions; col. 22, lines 21-23), and a shared memory (inherent from read and write shared data on the facilitator or other agent that maintain shared

data; col. 7, lines 45-50), the multimodal engine being configured to detect an interaction and to responsively initiate an interaction response by running the inference engine against the list of activation conditions and current state of the shared memory area (col. 16, line 66 – col. 7, line 2 and col. 18, lines 54-66), wherein the interaction and the interaction response have been specified by a previously registered modality component (Facilitator agent; col. 16, line 62 - col. 17, line 44 and col. 18, lines 54-66).

As to claim 8, Cheyer teaches wherein a plurality of modality components are simultaneously utilized, wherein the plurality of modality components specify a plurality of interactions and associated interaction responses, and wherein the multimodal engine is configured to detect any of the plurality of interactions and to responsively initiate an programmatic action (col. 18, lines 54-66 and col. 7, lines 41-48)

As to claim 9, see rejection of claim 5 above.

As to claim 10, Cheyer teaches the multimodal engine is configured to manage multimodal interactions involving multiple modality components (col. 7, lines 13-18 and col. 8, lines 7-14 and col. 10, lines 16-25).

As to claim 12, it is the same as the method claim of claim 1 and is rejected under the same ground of rejection.

As to claims 13-15 and 17, see rejections of claims 2-4 and 6 above.

As to claim 18, it is the same as the method claim of claim 1 above and is rejected under the same ground of rejection.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheyer et al (U.S. 7,069,560 B1) in view of Pasternack et al (U.S. 6,859,451 B1).**

As to claim 5, Cheyer does not explicitly teach wherein the device lacks available resources to locally execute at least one function that is handled by the remotely located modality component. However, Pasternack teaches the device lacks available resources to locally execute at least one function that is handled by the remotely located modality component (col. 2, lines 53-56). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Pasternack to the system of Cheyer because Pasternack provides advantages of having multimodal capability in the server rather only in the user's terminal include it enables advanced services to be offered to "thin" clients, and it enables new

capabilities to be added to services without having to distribute software to user's browser (col. 2, lines 49-67).

As to claim 16, see rejection of claim 5 above.

### *Response to Arguments*

5. Applicant's arguments filed 7/6/2007 have been fully considered but they are not persuasive.

In the remarks, Applicant argued in substance that (1) in this instant application, the activation conditions for modality components supported by a client device are submitted to the multimodal engine and can be used by the inference engine to dynamically compare with the current state of the shared memory area, thus automatically activates or deactivates required modality component based on the user interaction without specific request by the client device. However, in Cheyer, the client request has to be first received and then processed through multiple steps in order for an appropriate agent to be found (page 11, lines 6-17).

Examiner respectfully disagrees with Applicant's arguments:

As to the point (1), Cheyer teaches the request includes the activation conditions, the multimodal engine, based on the condition and the data put on the shared memory, and the knowledge base to select the correct agent (multimodal component) to process the client request that supported the client selected multimodal input, thus, Cheyer teaches the claimed limitation. Furthermore, the claims in this application do not claim the request cannot be submitted prior to submit only the activation condition, and appropriate multimodal has been activated.



Therefore, the arguments are not persuasive and the rejection is maintained.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K. Cao whose telephone number is (571) 272-3760. The examiner can normally be reached on Monday - Friday, 8:30AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DC  
September 22, 2007

  
WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER